

IN THE CLAIMS:

Please cancel Claims 62 to 79, 87 to 98 and 106 to 116 without prejudice or disclaimer of subject matter, and amend Claims 36, 49, 80, 99, 117, 123, 125, 126, 136, 146 and 147 as shown below. The claims, as pending in the subject application, now read as follows:

1. to 35. (Canceled)

36. (Currently amended) A hierarchical data display method for displaying hierarchically-managed data items, comprising steps of:

dividing a display area into an area in which a data icon representing a data item belonging to one level is displayed, and an area in which [[a]] data icons, at least including a data icon representing a data item belonging to a child level and another data icon representing a data item belonging to a level lower than the child level, are [[is]] displayed; and

displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

37. (Original) A hierarchical data display method according to claim 36, wherein as said hierarchical depth increases, said data icon size is decreased.

38. (Original) A hierarchical data display method according to claim 37, wherein as said hierarchical depth increases, said data icons are simplified more greatly.

39. (Original) A hierarchical data display method according to claim 36, wherein said sizes of said division areas are determined on the basis of the number of data items belonging to one level and the number of data items belonging to child levels.

40. (Original) A hierarchical data display method according to claim 36, wherein when there are a plurality of child levels, a display area for each child level is determined according to the number of data items belonging to levels subordinate to said child level.

41. (Original) A hierarchical data display method according to claim 36, wherein said child levels are displayed in a background expressing a parent level, and said background is selected and displayed so that a hierarchical depth can be distinguished.

42. (Original) A hierarchical data display method according to claim 39, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

43. (Original) A hierarchical data display method according to claim 36, further comprising a step of zooming in a desired level by performing a given operation after designating a display area for said desired level.

44. (Original) A hierarchical data display method according to claim 36, further comprising a step of displaying the detailed contents of a desired level by performing a given operation after designating a display area for said desired level.

45. (Original) A hierarchical data display method according to claim 43, further comprising a step of zooming out a level zoomed by performing said given operation so as to display a parent level.

46. (Original) A hierarchical data display method according to claim 36, further comprising a step of grouping a plurality of desired data icons, and displaying a leading data icon in such a way that it can be recognized that a plurality of desired data icons are grouped together.

47. (Original) A hierarchical data display method according to claim 46, further comprising a step of displaying a list of said plurality of data icons grouped together.

48. (Original) A hierarchical data display method according to claim 46, further comprising a step of rearranging a plurality of data icons grouped together, a step of releasing a group, and a step of deleting a desired data icon from a plurality of data icons grouped together.

49. (Currently amended) A hierarchical data browser system for displaying hierarchically-managed data items, comprising:

a display area dividing means for dividing a display area into an area in which data icon representing a data item belonging to one level is displayed, and an area in which [[a]] data icons, at least including a data icon representing a data item belonging to a child level and another data icon representing a data item belonging to a level lower than the child level, are [[is]] displayed; and

a data icon display means for displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

50. (Original) A hierarchical data browser system according to claim 49, wherein said data icon display means decreases said data icon size as said hierarchical depth increases.

51. (Original) A hierarchical data browser system according to claim 50, wherein said data icon display means simplifies said data icons more greatly as said hierarchical depth increases.

52. (Original) A hierarchical data browser system according to claim 49, wherein said display area dividing means determines sizes of division areas on the basis of the number of data items belonging to one level and the number of data items belonging to child levels.

53. (Original) A hierarchical data browser system according to claim 49, wherein when there are a plurality of child levels, said display area dividing means determines a display area for each child level on the basis of the number of data items belonging to levels subordinate to said child level.

54. (Original) A hierarchical data browser system according to claim 49, wherein said data icon display means includes a background display means for displaying data items belonging to the same level in the same background, said child levels are displayed in a

background expressing a parent level, and said background is selected so that a hierarchical depth can be distinguished.

55. (Original) A hierarchical data browser system according to claim 54, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

56. (Original) A hierarchical data browser system according to claim 49, further comprising a zoom-in means for use in zooming in a desired level by performing a given operation after designating a display area for said desired level.

57. (Original) A hierarchical data browser system according to claim 49, further comprising a detailed contents display means for use in displaying the detailed contents of a desired level by performing a given operation after designating a display area for said desired level.

58. (Original) A hierarchical data browser system according to claim 56, further comprising a zoom-out means for use in zooming out a level zoomed in by performing a given operation so as to display a parent level.

59. (Original) A hierarchical data browser system according to claim 49, further comprising a grouping means for grouping a plurality of desired data icons, and displaying a leading data icon in such a way that it can be recognized that a plurality of data icons are grouped together.

60. (Original) A hierarchical data browser system according to claim 59, further comprising a list display means for displaying a list of said plurality of data icons grouped together.

61. (Original) A hierarchical data browser system according to claim 59, further comprising a means for changing a representative picture of said plurality of data icons grouped together from one picture to another, a means for releasing a group, and a means for deleting a desired data icon from a plurality of data icons grouped together.

62. to 79. (Canceled)

80. (Currently amended) An image editing method for a hierarchical data management system for managing a plurality of data items hierarchically, comprising steps of:

displaying data icons serving as data identification information with a size made different in hierarchical order;

accessing data corresponding to a desired data icon by designating said desired data icon; and

displaying a data icon representing data whose access frequency is relatively larger with a ~~relatively larger~~ size relatively larger than a size of other data icons in a same hierarchical level.

81. (Currently amended) An image editing method according to claim ~~79~~ or 80, wherein data icons belonging to the same level are displayed distinguishably from data icons

belonging to other levels, and a level containing data whose access frequency is relatively high is displayed with a relatively large size.

82. (Currently amended) An image editing method according to claim ~~79~~ or 80, wherein when said data icon displayed with a relatively large size is not accessed for a period of time exceeding a certain period, said data icon is reduced in proportion to said period during which said data icon is not accessed or an access frequency of another data.

83. (Original) An image editing method according to claim 80, further comprising a step of zooming in, panning, or zooming out a desired level or data icon by designating said level or data icon.

84. (Original) An image editing method according to claim 83, wherein a data icon belonging to a level subordinating a marked level is vignettted and displayed.

85. (Original) An image editing method according to claim 84, wherein said vignetting is achieved by enlarging raw data representing the number of pixels smaller than the number of pixels to be displayed.

86. (Original) An image editing method according to claim 85, wherein a data icon belonging to a higher level is vignettted more intensely.

87. to 98. (Canceled)

99. (Currently amended) An image editing system for a hierarchical data management system for managing a plurality of data items hierarchically, comprising:

a display means for displaying data icons serving as data identification information with a size varied in hierarchical order;

an access means for use in accessing data corresponding to a desired data icon by designating said data icon; and

a second display changing means for displaying a data icon representing data whose access frequency is relatively high with a ~~relatively large~~ size relatively larger than a sizes of other data icons in a same hierarchical level.

100. (Currently amended) An image editing system according to claim ~~98 or~~ 99, wherein said display means displays data icons belonging to the same level distinguishably from data icons belonging to other levels, and said second display changing means displays a level containing data whose access frequency is relatively high with a relatively large size.

101. (Currently amended) An image editing system according to claim ~~98 or~~ 99, wherein when said data icon displayed with a relatively large size is not accessed for a period of time exceeding a certain period, said second display changing means reduces said data icon in proportion to said period during which said data icon is not accessed or an access frequency of another data.



102. (Original) An image editing system according to claim 99, further comprising a first display changing means for use in zooming in, panning, or zooming out a desired level or data icon by designating said level or data icon.

103. (Original) An image editing system according to claim 102, wherein said first display changing means includes a vignetting means for vignetting and displaying data icons belonging to a level subordinating a marked level.

104. (Original) An image editing system according to claim 102, wherein said vignetting means achieves vignetting by enlarging raw data representing the number of pixels smaller than the number of pixels to be displayed.

105. (Original) An image editing system according to claim 104, wherein said vignetting means vignettes data icons belonging to a higher level more intensely and displays them.

106. to 116. (Cancelled)

117. (Currently amended) A computer program product comprising a computer usable medium having computer readable program code means for displaying hierarchically-managed data items, said computer program product including:

computer readable program code means for dividing a display area into an area in which a data icon representing a data item belonging to one level is displayed, and an area in

which ~~[[a]] data icons, at least including a data icon representing a data item belonging to a child level and another data icon representing a data item belonging to a level lower than the child level, are~~ ~~[[is]]~~ displayed; and

computer readable program code means for displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

118. (Original) A computer program product according to claim 117, wherein said computer usable medium further having a hierarchically-managed data.

119. to 122. (Cancelled)

123. (Currently amended) A computer program product comprising a computer usable medium having computer readable program code means for managing a plurality of data items hierarchically, said computer program product including:

computer readable program code means for displaying data icons serving as data identification information with a size made different in hierarchical order;

computer readable program code means for accessing data corresponding to a desired data icon by designating said desired data icon; and

computer readable program code means for displaying a data icon representing data whose access frequency is relatively larger with a ~~relatively larger size~~ relatively larger than a size of other data icons in a same hierarchical level.

124. (Original) A computer program product according to claim 123, wherein said computer usable medium further having a hierarchical data and an access frequency data.

125. (Currently amended) A hierarchical data browser system for displaying hierarchically-managed data items, comprising:

a display area dividing device adapted for dividing a display area into an area in which a data icon representing a data item belonging to a level is displayed, and an area in which [[a]] data icons, at least including a data icon representing a data item belonging to a child level and another data icon representing a data item belonging to a level lower than the child level, are [[is]] displayed;

and a data icon display device adapted for displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

126. (Currently amended) A hierarchical data display method of displaying hierarchically-managed data items, comprising the steps of:

setting exclusively in a background indicating the parent level, a first area in which data item(s) belonging to a parent level is displayed and a second area in which data item(s) belonging to a child level is displayed, in a display area of every level; [[and]]

controlling a display of data icons respectively representing the data items in each of the areas; and

controlling a display so that when designating a data icon, detail information of data identified by the designated data icon is displayed, when designating a display area, the

designated display area is zoomed up and a data icon(s) representing data item(s) belonging to a level of the designated display area is displayed, and when designating the zoomed up display area for zoom out operation, a zoom out from the zoomed up display area to the display area of a parent level is performed.

127. (Previously presented) The method according to Claim 126, wherein sizes of said first and second areas are determined on the basis of the number of data items belonging to the parent level and the number of data items belonging to the child level.

128. (Previously presented) The method according to Claim 126, wherein when there are a plurality of the child levels, a display area for each child level is determined according to the number of data items belonging to levels subordinate to said child level.

129. (Previously presented) The method according to Claim 126, wherein the background is selected and displayed so that a hierarchical depth can be distinguished.

130. (Previously presented) The method according to Claim 129, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

131. (Currently amended) The method according to Claim 126, further comprising a step of zooming in a desired level by performing a given operation, wherein when a zoom up is instructed in the desired level, the display of items are controlled so that only data items belonging to the desired level and levels subordinate to said desired level are displayed.

132. (Previously presented) The method according to Claim 126, further comprising a step of zooming in a desired level by performing a given operation, wherein when a zoom up is instructed in the desired level, the detailed contents of the desired level are displayed.

133. (Previously presented) The method according to Claim 126, further comprising a step of zooming in a desired level by performing a given operation, wherein when a zoom out is instructed in the desired level, the display of items are controlled so that data items belonging to parent level(s) of the desired level are displayed.

134. (Previously presented) The method according to Claim 126, further comprising a step of judging whether a remaining area is left in which the first and second areas have not been set, wherein the first and second areas are set in the remaining area when the remaining area is left.

135. (Previously presented) The method according to Claim 126, wherein a size of each data icon is determined corresponding to the number of the data items.

136. (Currently amended) A hierarchical data display apparatus for displaying hierarchically-managed data items, comprising:

setting means for setting exclusively in a background indicating the parent level, a first area in which data item(s) belonging to a parent level is displayed, and a second area in which data item(s) belonging to a child level is displayed in a display area of every level; [[and]]

control means for controlling a display of data icons respectively representing the data items in each of the areas; and

control means for controlling a display so that when designating a data icon, detail information of data identified by the designated data icon is displayed, when designating a display area, the designated display area is zoomed up and a data icon(s) representing data item(s) belonging to a level of the designated display area is displayed, and when designating the zoomed up display area for zoom out operation, a zoom out from the zoomed up display area to the display area of a parent level is performed.

137. (Previously presented) The apparatus according to Claim 136, wherein said setting means determines sizes of said first and second areas on the basis of the number of data items belonging to the parent level and the number of data items belonging to the child level.

138. (Previously presented) The apparatus according to Claim 136, wherein said setting means, when there are a plurality of child levels, determines a display area for each child level according to the number of data items belonging to levels subordinate to said child level.

139. (Previously presented) The apparatus according to Claim 136, wherein said control means selects and displays the background so that a hierarchical depth can be distinguished.

140. (Previously presented) The apparatus according to Claim 139, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

141. (Currently amended) The apparatus according to Claim 136, further comprising zooming means for zooming in a desired level by performing a given operation, wherein said control means, when a zoom up is instructed in the desired level, controls the display of items so that only data items belonging to the desired level and levels subordinate to said desired level are displayed.

142. (Previously presented) The apparatus according to Claim 136, further comprising zooming means for zooming in a desired level by performing a given operation, wherein said control means, when a zoom up is instructed in the desired level, controls to display the detailed contents of the desired level.

143. (Previously presented) The apparatus according to Claim 136, further comprising zooming means for zooming in a desired level by performing a given operation, wherein said control means, when a zoom out is instructed in the desired level, controls the display of items so that only data items belonging to parent level(s) of the desired level are displayed.

144. (Previously presented) The apparatus according to Claim 136, further comprising judging means for judging whether a remaining area is left in which the first and second areas have not been set, wherein said setting means sets the first and second area in the remaining area when the remaining area is left.

145. (Previously presented) The apparatus according to Claim 136, wherein said control means determines a size of each data icon corresponding to the number of the data items.

146. (Currently amended) A program executable by a computer for displaying hierarchically-managed data items, comprising the ~~the~~ steps of:

setting exclusively in a background indicating the parent level, a first area in which data item(s) belonging to a parent level is displayed, and a second area in which data item(s) belonging to a child level is displayed, in a display area of every level; ~~and~~

controlling a display of data icons respectively representing the data items in each of the areas; and

controlling a display so that when designating a data icon, detail information of data identified by the designated data icon is displayed, when designating a display area, the designated display area is zoomed up and a data icon(s) representing data item(s) belonging to a level of the designated display area is displayed, and when designating the zoomed up display area for zoom out operation, a zoom out from the zoomed up display area to the display area of a parent level is performed.

147. (Currently amended) A computer-readable storage medium storing a program of displaying hierarchically-managed data items, said program comprising the steps of:

setting exclusively in a background indicating the parent level, a first area in which data item(s) belonging to a parent level is displayed, and a second area in which data item(s) belonging to a child level is displayed, in a display area of every level; ~~and~~



controlling a display of data icons respectively representing the data items in each of the areas; and

controlling a display so that when designating a data icon, detail information of data identified by the designated data icon is displayed, when designating a display area, the designated display area is zoomed up and a data icon(s) representing data item(s) belonging to a level of the designated display area is displayed, and when designating the zoomed up display area for zoom out operation, a zoom out from the zoomed up display area to the display area of a parent level is performed.